



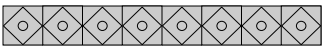
InFLOWmation

Westford Water Department Newsletter



Water Commissioners:

- Elizabeth Denly, Chairperson
- Hugh C. Maguire, Vice Chair
- Titus Palmer, Secretary
- Chauncey Chu, Alternate



Department Contacts:

- Stephen Cronin, Superintendent
- Water Operations Manager, Dave Crocker
- Larry Panaro, Business Manager
- Mark Warren, Environmental Compliance Manager



Inside This Issue:

| | |
|--|---|
| Water Dept. Projects | 1 |
| Get Connected; New Fluoride Level; Bill Calculator | 2 |
| CCR; Rain Barrels; Water Restrictions; Private Wells | 3 |
| SWMI Grant; Stormwater; We'd Like to Reach You! | 4 |
| Aging Infrastructure | 5 |
| How to Reach Us | 6 |
| Fire Hydrants | 6 |

2015 Water Improvement Projects

This summer the Water Department upgraded portions of the water mains on Graniteville Road and Pleasant Street:

Graniteville Road: approximately 1,100 linear feet of existing 4" and 8" main were replaced with 12" ductile iron water main between Main Street and Patriot Lane.

Pleasant Street: approximately 1,800 linear feet of 4" and 6" main from Pine Street to Patten Lane were replaced with 8" ductile iron water main. All fire hydrants, gate valves, and customer services within the project routes were also replaced.

We replaced this main with larger diameter pipes of greater durability in order to improve water quality, pressure, fire flow, and to improve system reliability. These sections of water main were identified in the Water Department Master Plan as needing replacement. More on this on page 5.



The water main installation phase of this project is completed. A temporary leveling course of paving is scheduled to

Left: A section of old water main from Pleasant Street showing buildup of rust (tuberculation).

be applied during the last week of October and first week of November, and the final curb-to-curb overlay will be completed in the spring of 2016.

Funding for both projects was provided entirely from the Westford Water Department Enterprise Fund. We understand that road construction can be disruptive and inconvenient to area residents—we appreciate your patience!

In the Pipeline...

The Water Department is recommending the replacement of approximately 1,500' of 4" cast iron main and 2,250' of 8" asbestos cement water main on Main Street in the spring of 2016. The proposed project area is from Depot Road to Tadmuck Road. This project is subject to funding appropriated at Town Meeting.

In addition to reaching the end of its service life, this stretch of main is undersized and needs to be enlarged to provide sufficient fire flow.

Below: Project Work on Pleasant Street



Get Connected!

When there is important Water Department news such as emergency shutdowns, notification of outdoor water use restrictions, construction alerts, and the like we post this information to our website and the Town's Announcements and News Alerts. By subscribing to this important communication tool, you will automatically receive these notifications via email. It's a very efficient means to communicate important information to our customers. If you've not already subscribed it's very easy to do:

Visit the Westford Town website at www.westfordma.gov, and place your cursor on the "Residents" tab at the top of the page. From there go to "Online Services" and to "Subscribe to News Alerts". Enter your email in the appropriate field and check off the box next to "Town News and Notices in the "Under Lists" section. By doing this you will automatically receive important Town news—including Water Department notifications—in your email.



New Fluoride Level

In accordance with a Town Meeting vote, the Westford Water Department has been fluoridating the public water supply since the early 1990's as a means to promote dental health. Until recently, the Water Department added fluoride at the optimal level of 1.0 ppm (parts per million).



Based on updated recommendations from the United States Department of Health and Human Services, and under direction of the Westford Board of Health, the Westford Water Department is now fluoridating the water at the new lower optimal level of 0.7 ppm.

This new lower optimal level reflects the fact that there are more sources of fluoride available now than when the recommendations were made in the 1960s. For more information on public water fluoridation visit the Westford Water Department website at www.westfordma.gov/water and click on the "Education and Outreach" tab at the left and follow to the "Fluoridation" tab.

How Do I Calculate My Water Bill?


Want to know how your water bill is calculated - or check your water usage? Visit the Water Department website at:

www.westfordma.gov/water

and try our new Residential Water Bill Calculator. Simply enter the requested information from your water bill to calculate your current usage or project your quarterly water bill.

Visit the Water Department website at:

www.westfordma.gov/water for the electronic version of the Inflowmation to access the linked material in this newsletter.



Town of Westford
Water Department
60 Forge Village Road
Westford, MA 01886
978-692-5529

Residential Water Bill Calculator

Bill Information

To see how your water bill was calculated, enter the information from your water bill:
OR
To estimate what your bill will be at your current usage rate, record 2 readings from your water meter and enter the values below:

Previous Read Date: 06/01/2015

Current Read Date: 09/03/2015

Previous Meter Read: 125000

Current Meter Read: 128500

Usage Calculations

Based on the information you entered, the following information is calculated:

| Current Information | 90 Day Projection |
|---|---------------------------------|
| Water usage in cubic feet: 3500 | Water usage in cubic feet: 3351 |
| Water usage in gallons: 26180 | Water usage in gallons: 25065 |
| Number of days between meter readings: 94 | |
| Average daily water use in gallons: 279 | |

Bill Calculations

Westford has a three tier, increasing block water rate structure that is billed in 100 cubic foot increments. Under this rate structure, water consumption up to 2,500 cubic feet per quarter is charged at the first tier rate of \$4.19 per 100 cubic feet. If

Consumer Confidence Report

The Water Department provides our customers with a direct link to the current electronic copy of the CCR on the Water Department website. **Visiting the following website address will take you to the current CCR:**
<http://www.westfordma.gov/ccr>

The CCR contains important information about the source and quality of your drinking water, and is well worth the time to review. Since electronic delivery has become our primary method for providing the annual CCR it's important to note that:

- **The Westford Water Department no longer mails out paper copies of the CCR unless requested.**
- **If you have previously requested a paper copy then one will automatically be sent to you each year (there is no need to make additional requests).**
- **Please call at 978-399-2457 (or send email to mwarren@westfordma.gov) if you would like a paper copy delivered to your home or business.**

In addition, paper copies of the CCR will still be available at the Water Department, Town Hall and other municipal and community buildings.

2015 Rain Barrel Sale

The Westford Water Department partnered with The Great American Rain Barrel Company in 2015 to provide a town rain barrel program. The program was a success with over 30 rugged and attractive rain barrels purchased at discounted rates. If you did not get a chance to purchase a rain barrel through the program then not to worry—we plan on participating in a municipal rain barrel program in the spring of 2016.



Why We Institute Outdoor Water Use Restrictions

A sure sign of spring in Westford is the appearance of the outdoor water use restriction signs throughout town. These restrictions include the odd/even outdoor watering schedule and watering times of 6:00 pm through 9:00am. **Why the odd/even schedule and times?** This schedule allows us to spread demand out more evenly throughout the week. In addition, watering during periods of less intense sun/evaporation allows more water to soak into the ground which not only helps your lawn, but gets water back into the aquifer, and results in less water needed to maintain your lawn.

Our decision to institute mandatory restrictions may be based on a state declaration of drought advisory or on our difficulty in meeting demand during extended dry periods while maintaining a safe supply for fire protection. It's important to keep in mind that our storage and pumping capacities are limited not only by our infrastructure but on daily withdrawal limits imposed by the MassDEP. Whatever the reason, when we announce restrictions we rely on our customers to follow them. This allows us to maintain a safe supply of drinking water for our customers and for fire protection.

Possible Changes for 2016: Forthcoming changes in our Withdrawal Permit may require the Water Department to automatically institute mandatory two-day per week outdoor water use restrictions at the beginning of the season—with the possibility of an upgrade to one-day per week restrictions if specified environmental triggers are exceeded. More on this in the near future.

Have a question about your private well?

Visit the Health Department website at www.westfordma.gov/health and click on the “Private Wells” link **or** Contact Jeff Stephens, Director of Environmental Services, Westford Health Dept.: 978-692-5509 or at jstephens@westfordma.gov.



SWMI Grant

The Westford Water Department was the recipient of a 2015 Sustainable Water Management Initiative (SWMI) Grant awarded from the Massachusetts Department of Environmental Protection (MassDEP).



The grant provided funds to purchase metering equipment (for automated meter reading) and to purchase 33 high-efficiency toilets (1.28 gallons per flush) for retrofit of municipal buildings using older, less-efficient models. Installation of the metering equipment will allow the Water Department to pursue monthly meter reading and eventually monthly billing. By performing monthly meter reading, it will allow us to catch potential leaks or report unusually large volumes of water usage to our customers before the bill becomes too high.



In addition, the grant provided funding for a residential water-efficient clothes washers/toilet rebate program. Water-efficient toilets (1.28 gpf or less) with the EPA Watersense label and Energy Star-labeled clothes washers with a water factor of 4.0 or less (water factor is the volume of water used during a wash cycle over the capacity in cubic feet of the washer—the lower the WF the more efficient the washer) were eligible for rebates of \$100 per qualifying toilets and \$75 per qualifying clothes washers. The rebate program resulted in 61 inefficient toilets and 8 inefficient clothes washers being replaced with more efficient water-saving models.



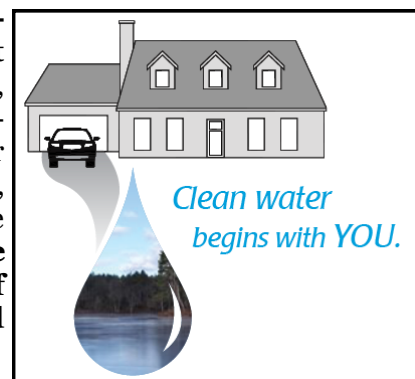
As part of the grant program, the Water Department distributed free water saving devices (aerators and showerheads) at the Water Department and J.V. Fletcher Library. Eight hundred aerators and 200 water-efficient showerheads were provided free of charge to Westford Water Department customers.

Estimated water savings over the lifetime of all grant-funded fixtures (toilets and clothes washers) and water-saving devices is 142 million gallons.



Stormwater

The Town of Westford is launching a **Stormwater Management Master Plan** to proactively manage the runoff from rain storms and snow melt (known as “stormwater”). Much of this runoff is carried by drain pipes, which were designed to quickly move the water off the land surface to nearby streams, ponds and wetlands with little or no treatment. On its way over the land, this runoff picks up pollution such as oil, fertilizers, pesticides, salt and pet wastes. This stormwater pollution also gets absorbed into the ground where it travels to the wells that supply our drinking water. **We treasure living, working and playing in the scenic landscape of Westford. Together we can protect the quality of our lakes and ponds and maintain clean drinking water.**



We need your help! Learn about the issues and be part of the plan to address them. Visit us at www.westfordma.gov/stormwater. To be added to the study contact list to receive email notices about upcoming Public Meetings, write to stormwater@westfordma.gov

We'd Like to Reach You!

In order for us to serve our customers better it's important for us to have current and accurate contact information. Please forward your primary contact information such as telephone number and email to mwarren@westfordma.gov or click on the “Contact the Water Department” link at the Water Department website or simply write them on your next bill. Thanks!



Our Aging Water Infrastructure

Westford's public water system dates back to 1907, and integral parts of it are over 100 years old and still in service. Unfortunately, time can be unforgiving to underground water main—especially main installed early in the 20th century using less corrosion-resistant materials that are available today. The effects of aging, corrosion, and harsh conditions (such as poor drainage) can seriously undermine the integrity of an underground water main.

Aging can also effect the internal diameter of the main by a phenomenon known as tuberculation. This is a process where corrosion creates the formation of mounds of rust (tubercles)

within the water main thereby reducing the diameter and

smoothness of the pipe. This is important because over time tuberculation reduces a main's carrying capacity (volume) and reduces water pressure by decreasing the diameter of the pipe. Nowadays, we are better able to control this trend by adjusting water chemistry and by regular water main flushing—standard practices less common 100 years ago.



Above: Main on left showing tuberculation

As a public water supplier, it is our responsibility to identify areas of the distribution system susceptible to failure due to age and conditions, and to upgrade accordingly with newer and more durable materials. However, age is not the only factor as population growth and development can render water main undersized and insufficient to provide enough pressure and fire protection (fire flow) to an area.

Like most things, water main has a finite useful service life. For example, cast iron pipes have a service life of 100 years while cement pipes have a service life of 50-75 years - depending on soil conditions. Simply put, once the useful service life is exceeded, replacement is inevitable, and putting it off too long can have disastrous consequences. Water main breaks make a regular appearance on the nightly news—costly incidents causing flooding, property damage, disruptions in water service affecting residents and business, and even creating a pathway for contamination.

Replacing water mains can be noisy, dusty, and generally inconvenient to residents—not to mention expensive. We understand the disruptions and don't undertake these projects lightly. Main replacements are implemented only after prioritizing the most vulnerable and critical areas. Main replacement projects are only performed to remove degraded or undersized main or to improve pressure and water quality to an area. In addition, replacement with a larger water main provides greater fire flow which impacts public safety and even property insurance rates.

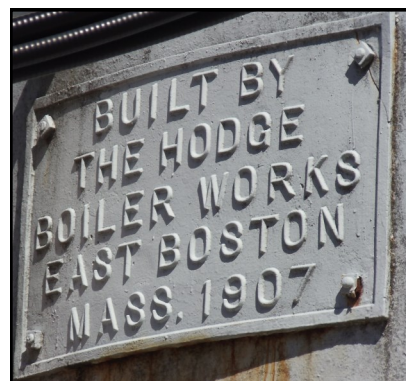
Water supply infrastructure aging is not just an issue for Westford, but throughout the state and country. The Environmental Protection Agency (EPA) estimates that it will cost \$384 billion over 20 years to maintain the country's drinking water infrastructure. The Water Infrastructure Finance Commission, created by the Massachusetts Legislature, estimated back in 2012 that a 10.2 billion dollar gap exists between current funding for drinking water infrastructure needs and actual funding necessary for improvement, repairs, and maintenance to the Commonwealth's public water systems.

Fortunately, the Westford Water Department has the advantage of being an Enterprise Fund, which helps provide the funding necessary to be more proactive in dealing with the problem of aging water infrastructure than many other cities and towns in Massachusetts. We will continue our efforts to diligently maintain and improve Westford's public drinking water system.

For more information visit the electronic copy of the Inflowmation on the Water Department website at www.westfordma.gov/water and click on the links below:

[EPA: Massachusetts Needs Billions to Ensure Clean Water](#)
[Drinking Water Systems Imperiled by Failing Infrastructure](#)

Right: Prospect Hill Water Storage Tank—constructed 1907



Westford Water Department
INFLOWMATION
Fall 2015
60 Forge Village Road
Westford, MA 01886

Presorted Standard
US Postage Paid
Westford, MA 01886
Permit No. 12

Visit Our Website!
www.westfordma.gov/water



Postal Patron

Westford, MA 01886

Hours of Operation:

7am to 4pm Monday-Friday
(except Holidays)

How to Reach Us

| | |
|----------------------------------|----------------|
| Main Phone Line | (978) 692-5529 |
| Superintendent | (978) 399-2455 |
| Water Operations Manager | (978) 399-2456 |
| Business Manager | (978) 399-2453 |
| Environmental Compliance Manager | (978) 399-2457 |
| Billing and Property Transfers | (978) 692-5529 |
| Accounts Payable | (978) 692-5529 |

Visit our website:
www.westfordma.gov/water

After Hours

In the event of a water emergency outside of the work day, call the Police Department at 978-692-2161. The police dispatcher will contact our on-call personnel for quick response.

Fire Hydrant Shoveling— Our Annual Friendly Reminder...

We need your help in keeping the fire hydrants free from snow (at least 3 feet surrounding the hydrant should be cleared). With over 1,000 hydrants in town it takes us considerable time to get to them all after



each major snow storm, and the more help we get from folks the quicker we can get them cleared and easily accessible in the event of an emergency. ***We had a lot of help from our customers last winter—we appreciate your continued support!*** Also—please remember: In accordance with Massachusetts General Law Chapter 148 Section 27B it is unlawful to

pile, push, or plow snow or ice on or against any fire hydrant in any public or private way. *Please make sure not to shovel, plow, or blow snow onto the hydrants when clearing your property!*



Printed on Recycled Paper

